



The Evolution of Management Practices in New Zealand

Lynda Sanderson

March 2022

Business and management practices have been shown internationally to be a key factor in determining firm productivity and export performance.¹ New Zealand research shows a clear link between specific practices, such as market research, monitoring of competitors' goods and services, and a range of employee practices, and measures of firm success.² However, detailed interview-based research undertaken in 2009 found that New Zealand manufacturing firms sat around the middle of the pack with respect to the quality of their management practices and that performance in people management was particularly poor.³

This paper explores how management practices have evolved in New Zealand. The paper reports on the aggregate change in the prevalence of 58 specific management practices over the period 2005 to 2017, before delving into a more detailed exposition of three example areas of practice. These are labelled as “planning” – the extent to which firms have formal processes for developing goals, and the length of these planning horizons; “scanning” – the extent to which firms are monitoring the competitive environment; and “manning” – the use of specific human resource practices such as performance reviews and performance pay. For these examples, the paper describes differences in uptake across industries and firm-size groups and explores how changes in overall prevalence can be decomposed into changes in the structure of the economy, firm entry and exit, and within-firm practice change. An appendix summarises three additional practices within MBIE’s policy sphere – related to environmental impacts, health and safety, and technology change. Estimated levels and decompositions of all 58 practices are available through an online appendix: mbienz.shinyapps.io/management_practices_data_appendix

- 1 Bloom, Nicholas et al. (2013), “Does Management Matter? Evidence from India”, *The Quarterly Journal of Economics* 128(1), pp. 1–51. Bloom, Nicholas et al. (2019), “What Drives Differences in Management?”, *American Economic Review* 109(5), pp. 1648–1683. Bloom et al. (2021), “Trade and management”, *The Review of Economics and Statistics* 103(3), pp. 443–460.
- 2 Fabling, Richard and Arthur Grimes (2007). “Practice makes profit: Business practices and firm success”, *Small Business Economics* 29, pp. 383–399. Fabling, Richard and Arthur Grimes (2014). “The “Suite” Smell of Success: Complementary personnel practices and firm performance”. *ILR Review* 67(4), pp. 1095–1126.
- 3 Bloom, Nicholas et al. (2012), “Management Practices across Firms and Countries”, *Academy of Management Perspectives* 26(1), pp. 12–33. Green, Roy et al. (2011). *Management matters in New Zealand*. Occasional Papers 11/03. Ministry of Business, Innovation and Employment.



How do we measure management practices?

The study makes use of four waves of the Business Operations Survey's (BOS) Business Practices module. This module was run every four years from 2005–2017 and collects information about a wide range of practices, across topics such as “strategy, goals and planning”, “information and benchmarking”, “quality and process”, and “employee practices”. In most questions, respondents are asked either to indicate if they have a particular practice in place, or to report the strength or prevalence within their firm of a particular practice, given a set of multi-choice response options. For example, in the strategy, goals and planning section, respondents are asked “Thinking about the goals set for this business, how far ahead does this business plan?” with response options such as “up to 6 months” and “up to a year”.

In order to describe and decompose the aggregate change in practices over time, we create an index for each item that appears consistently in all four BOS surveys. For yes/no questions this is simply the share of firms reporting that they have a specific practice in place (eg, stating that they use formal planning processes to set goals). For practices with multiple, ordered response options, we simplify by creating an index which ranges between zero and one for each firm in which a zero represents that the firm selected the lowest available response (eg, “no goals set for this business”), a one represents the highest available response (eg, “more than two years”), and intermediate responses are given values spread equally between the two extremes. These firm-level indices for the BOS sample firms are aggregated to the population level using two sets of weights – one based on firm counts, to give an estimate of the average level of uptake across all firms, and one based on employment weights, to give an estimate of the share of employment accounted for by firms with a particular practice.

One limitation of this broad, longitudinal approach is that it cannot draw out the nuances of management capability in the way that detailed interview and observational studies such as the World Management Survey project can. This can lead to issues of comparability if survey respondents differ in their understanding of a question, or if the implementation of practices differs across firms or over time. As such, we examine only the evolution of management *practices* rather than management *capability* or *quality*. While the practices captured in BOS are generally expected to be beneficial – either to the firm itself in terms of productivity, profitability or resilience; to the workers in terms of their working conditions and job satisfaction; or to the wider economy and society eg, through improved health and safety or environmental practices – this will not always be the case and may be situation dependent. More of a given practice is not always better, especially when that practice comes at a cost, either directly or through diverting resources from other tasks.

How, and how much, have practices changed over time?

The period from 2005 to 2017 saw little change in the overall prevalence of the practices reported in BOS. In most cases the aggregate index changed by less than 0.03 over 12 years. In the case of a simple yes/no response option, that is equivalent to 3 more firms in a hundred answering “yes” (or “no”, where prevalence is declining) to having a particular practice in 2017 than in 2005. Throughout the paper we focus on examples where either the firm or the employment-weighted index changes by more than this threshold amount, as well as identifying groups of related practices which have undergone similar changes over time.

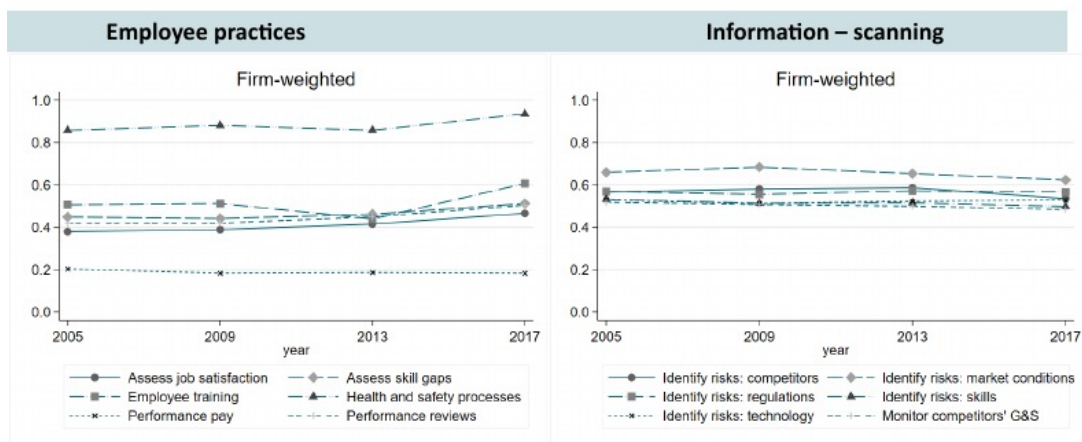




A broad overview of changes in practices suggests three key themes:

- › Firms appear to have increased their focus on human resource practices (*manning*), with increases in the extent to which firms are assessing both employee performance and employee satisfaction (figure 1). In 2017, firms appeared to be making greater attempts to engage employees by promoting a company vision and values, by communicating regularly about business plans and goals, and by incorporating the needs of employees in the development of those goals. There was also a notable increase in the extent to which firms reported that they focused on factors such as job satisfaction and skill development when assessing firm performance. Employee participation in training, the use of formal performance reviews, and the adoption of processes to manage health and safety all increased in prevalence, while the use of performance pay declined.

Figure 1: Comparison of selected practice indices, 2005-2017



- › Firms also seem to have focused somewhat more on monitoring their own performance, and in contrast, placed less emphasis on monitoring their competitive environment. Nearly all the practices which declined between 2005 and 2017 were related to external *scanning* – from the extent to which firms were monitoring their competitors' goods and services and comparing themselves to other firms in the same industry, to their attempts to identify risks and opportunities associated with market conditions, competitors, and skill availability. The only external monitoring activity which increased in prevalence over the period was the extent to which firms considered risks and opportunities from technology, though even here the increase was focused among large firms and made in the context of rapid technological change.
- › The most substantial changes in practices reflect contemporaneous shifts in policy and in public awareness. Among the 58 practices studied, the largest single change observed over the period was an increase of 11.5 percentage points in the share of firms reporting they had measures in place to reduce their environmental impact, while the share of firms with health and safety processes in place rose by 7.7 percentage points.





Proximate drivers of change – changing practices, changing firms, or a changing economy?

Although aggregate changes in practice have been limited, it remains instructive to consider the proximate drivers of the changes (and indeed, the lack of change) that we have seen. The paper considers two decompositions of practice change across the 12 years: changes in the industry composition of the economy vs changes in prevalence of practices within each industry; and changes in the composition of surveyed firms, due to firm birth and death and turnover in the survey sample, vs within-firm changes in uptake.

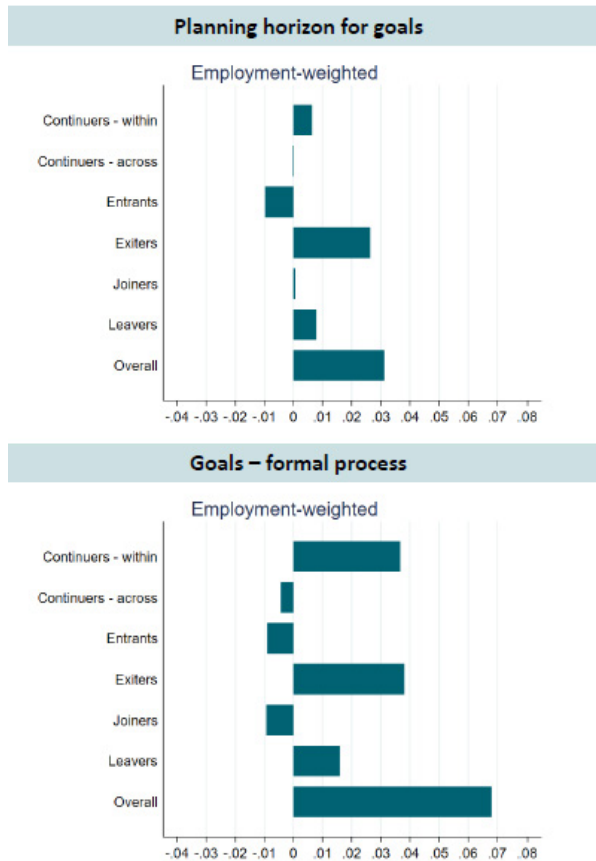
Although management practices differ substantially across industries reflecting different key activities and areas of focus, the study period has seen quite limited change in industry structure, at least across the 89 two-digit ANZSIC06 categories captured by BOS. As such, almost every practice shows a stronger role for within-industry change than structural change in determining the overall shifts in prevalence.

In contrast, when looking at the firm level the direction and relative importance of within-firm practice change and changing firm composition differs across practices, as shown in the example of planning practices (Figure 2).

Across the 12-year study period, there has been a mild increase in the reported length of planning horizons across the population, alongside a relatively strong increase in the use of formal processes for setting goals. Taking the employment-weighted results as an example, figure 2 shows that the index for the length of planning horizons has increased by 0.03,⁴ while the share of employment in firms reporting they use formal goal setting practices increased by 0.07.⁵

However, while the increase in planning horizons was driven primarily by the exit of firms with shorter horizons, the increasing use of formal processes was driven almost equally by the exit of firms using informal practices and increased uptake of formal practices among continuing firms. The important contribution of exit to planning and goal setting practices may reflect that some of these firms were already intending to exit and thus did not need to make longer term plans but is also consistent with the maxim that “failing to plan = planning to fail”. Further examples are available in the paper, and the full set of practices are covered in the online appendix.

Figure 2: Decomposition of practice changes by firm dynamics, 2005-2017



Note: Decomposition of change in practice indices between 2005 and 2017, weighted by firm employment. Upper panel: Index of length of planning horizon for goals. Lower panel: Proportion of employment in firms which report they use formal processes for setting goals.

4 Recall that this index is based on a scale of responses where the lowest option is “don’t know” or “no goals set for this business” and the highest is “more than two years” – the main shift in the underlying data is an increase in the share of both firms and employment stating they plan for more than 2 years, and a corresponding decrease in the share saying they plan for “up to a year”.

5 That is, an estimated 7 additional employees in every hundred worked for a firm using formal processes in 2017 than in 2005.





Conclusions and caveats

This paper paints a picture of management practices across the population of New Zealand firms over a 12-year period. In doing so, it focuses on a source of practice data which excels in its representative coverage, consistency of definitions, and ability to track individual firms over time – both in their responses to the practices survey and in the dynamics of entry, exit, and employment growth.

The results suggest limited change in the prevalence of most reported practices over this period. Looking across practices, the area which has seen the greatest increase in uptake is that of human resource management, including a range of practices to increase employee engagement and performance. These practices appear in the suite of general human resource practices which are associated with increases in firm productivity, and greater uptake may help address the gap in people management identified among New Zealand manufacturing firms.

Conversely, there seems to have been something of a reduction in the extent to which firms are scanning their environment and monitoring what others in the industry are doing. This sits at odds with what Teece et al⁶ term dynamic capabilities – the ability to “sense” risks and opportunities, to “seize” those opportunities, and to “transform” their businesses accordingly. In this sense, the changes observed over the 12-year period seem to be a relative shift towards “ordinary capabilities” or “doing things right”, rather than the dynamic capability of “doing the right things”. The relative importance of these two forms of capability is likely to depend on the technological and competitive environment, both of which have undergone rapid transformation since 2017. Future waves of the survey may shine a light on how technology, supply, and health shocks due to COVID-19 have shifted firms’ approach to markets, employees and monitoring.

Future research in this area could usefully revisit the relationship between within-firm changes in management practices and changes in employee and firm outcomes, and the factors which appear to be driving the adoption of beneficial management practices over time. An improved understanding of which practices are important, for which groups of firms, and the economic forces which drive firms to improve their practices, could inform a broad range of policy and regulatory areas including investment promotion and competition policy as well as direct business support and training provision.

[Read the full version of the report here](#)

These results are not official statistics. They have been created for research purposes from the Integrated Data Infrastructure (IDI) and Longitudinal Business Database (LBD) which are carefully managed by Stats NZ. For more information about the IDI and LBD please visit www.stats.govt.nz/integrated-data

The results are based in part on tax data supplied by Inland Revenue to Stats NZ under the Tax Administration Act 1994 for statistical purposes. Any discussion of data limitations or weaknesses is in the context of using the IDI for statistical purposes, and is not related to the data’s ability to support Inland Revenue’s core operational requirements.

⁶ Teece, David J., Gary Pisano, and Amy Shuen (1997), “Dynamic Capabilities and Strategic Management”, *Strategic Management Journal* 18(7), pp. 509–533. Teece, David J. (2019). “A Capability Theory of the Firm: An economics and (Strategic) management perspective”. *New Zealand Economic Papers* 53(1), pp. 1–43.